This listing of claims replaces, without prejudice, all prior versions and listings of claims in the application:

List of claims:

Claims 1 – 26 (Canceled)

27. (Currently amended) A method for producing solid lubricant agglomerates comprising:

admixing a plurality of components comprising particulate solid lubricant, an inorganic binder, and a liquid to produce a mixture having about 5 to 60 weight % solids based on the total weight of the mixture, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 19:1 to about 1:19;

drying the mixture to produce dry agglomerates; and

classifying the dry agglomerates by size, or milling and classifying the dry agglomerates by size, into an undersize particle fraction, a desired ~~an onsize~~ particle size fraction and an oversize particle fraction;

wherein the plurality of components further comprises the undersize particle fraction.

28. (Previously presented) The method as claimed in claim 27, wherein the oversize particle fraction is either admixed with the plurality of components to form the mixture, or is crushed to achieve the desired particle size cut.

29. (Previously presented) The method as claimed in claim 27, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

30. (Previously presented) The method as claimed in claim 27, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is about 8 : 2.

31. (Previously presented) The method as claimed in claim 27, wherein the solid lubricant is at least one lubricant selected from the group consisting of hexagonal boron nitride, graphite, calcium fluoride, magnesium fluoride, barium fluoride, tungsten disulphide and molybdenum disulphide particles.

32. (Previously presented) The method as claimed in claim 27, wherein the solid lubricant is hexagonal boron nitride.

33. (Previously presented) The method as claimed in claim 32, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

34. (Previously presented) The method as claimed in claim 32, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is about 8 : 2.

35. (Previously presented) The method as claimed in claim 32, wherein the liquid is water and the binder is hydrous aluminium silicate that is configured to be stabilized at temperatures above 850°C in the desired particle size cut.

36. (Previously presented) The method as claimed in claim 32, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

37. (Previously presented) The method as claimed in claim 27, wherein the liquid is water and the binder is hydrous aluminium silicate that is configured to be stabilized at temperatures above 850°C in the desired particle size cut.

38. (Previously presented) The method as claimed in claim 27, further comprising admixing a filler with the solid lubricant, the binder, and the liquid to produce the mixture, wherein the solids of the mixture has up to 40 volume % filler based on the total volume of the solids.

39. (Previously presented) The method as claimed in claim 27, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

40. (Previously presented) The method as claimed in claim 27, wherein the binder is sodium silicate.

41. (Previously presented) The method as claimed in claim 27, wherein the drying of the mixture occurs at a temperature below an effective temperature at which the binder is rendered non-dispersible in the liquid.

42. (Currently amended) The method as claimed in claim 27, wherein the binder of the ~~onsize~~ desired particle size fraction is rendered non-dispersible in the liquid.

43. (Previously presented) The method as claimed in claim 27 or 42, wherein the undersize particle fraction is supplied to the plurality of components after being classified from the dry agglomerates.

44. (Previously presented) A method for producing solid lubricant agglomerates comprising:

admixing a plurality of components comprising a particulate solid lubricant, an inorganic binder, and a liquid to produce a mixture having about 5 to 60 weight % solids based on the total weight of the mixture, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 19:1 to about 1:19;

drying the mixture to produce dry agglomerates;

classifying the dry agglomerates by size, or milling and classifying the dry agglomerates by size, to obtain a desired particle size cut; and

causing the binder in the desired particle size cut to become non-dispersible in the liquid.

45. (Previously presented) The method as claimed in claim 44, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

46. (Previously presented) The method as claimed in claim 44, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is about 8 : 2.

47. (Previously presented) The method as claimed in claim 44, wherein the solid lubricant is at least one lubricant selected from the group consisting of hexagonal boron nitride, graphite, calcium fluoride, magnesium fluoride, barium fluoride, tungsten disulphide and molybdenum disulphide particles.

48. (Previously presented) The method as claimed in claim 44, wherein the solid lubricant is hexagonal boron nitride.

49. (Previously presented) The method as claimed in claim 48, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

50. (Previously presented) The method as claimed in claim 48, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is about 8 : 2.

51. (Previously presented) The method as claimed in claim 48, wherein the liquid is water and the binder is hydrous aluminium silicate that is configured to be stabilized at temperatures above 850°C in the desired particle size cut.

52. (Previously presented) The method as claimed in claim 48, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

53. (Canceled)

54. (Previously presented) The method as claimed in claim 44, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

55. (Previously presented) The method as claimed in claim 44, wherein the plurality of components further comprises a filler, wherein the solids of the mixture has up to 40 volume % filler based on the total volume of the solids.

56. (Previously presented) The method as claimed in claim 44, wherein the binder is sodium silicate.

57. (Previously presented) A method for producing solid lubricant agglomerates comprising:

admixing a plurality of components comprising a particulate solid lubricant, an inorganic binder, and a liquid to produce a mixture having about 5 to 60 weight % solids based on the total weight of the mixture, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 19:1 to about 1:19; and

drying the mixture to produce dry agglomerates.

wherein the binder is hydrous aluminium silicate that is configured to be stabilized at temperatures above 850°C in the dry agglomerates.

58. (Previously presented) The method as claimed in claim 57, wherein the hydrous aluminium silicate comprises at least one of bentonite, fuller's earth or montmorillonite.

59. (Previously presented) The method as claimed in claim 57, wherein the hydrous aluminium silicate is bentonite.

60. (Currently amended) The method as claimed in claim 57, further comprising the step of classifying the dry agglomerates by size, or milling and classifying the dry agglomerates by size, into an undersize particle fraction , ~~an onsize~~ a desired particle size fraction, and an oversize particle fraction.

61. (Previously presented) The method as claimed in claim 57, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

62. (Previously presented) The method as claimed in claim 57, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is about 8 : 2.

63. (Previously presented) The method as claimed in claim 57, wherein the solid lubricant is at least one lubricant selected from the group consisting of hexagonal boron nitride, graphite, calcium fluoride, magnesium fluoride, barium fluoride, tungsten disulphide and molybdenum disulphide particles.

64. (Previously presented) The method as claimed in claim 57, wherein the solid lubricant is hexagonal boron nitride.

65. (Previously presented) The method as claimed in claim 64, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

66. (Previously presented) The method as claimed in claim 64, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is about 8 : 2.

67. (Previously presented) The method as claimed in claim 63, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

68. (Previously presented) The method as claimed in claim 56, wherein the liquid is water.

69. (Previously presented) The method as claimed in claim 56, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

70. (Previously presented) The method as claimed in claim 30, wherein the plurality of components further comprises a filler, wherein the solids of the mixture has up to 40 volume % filler based on the total volume of the solids.

71. (Previously presented) The method as claimed in claim 56, wherein the binder is sodium silicate.

72. (Previously presented) A solid lubricant agglomerate produced by the method of any one of the preceding claims.

73. (Currently amended) A ~~spheroidal~~ rounded shape form of the solid lubricant agglomerate of claim 72.

74. (Previously presented) The solid lubricant agglomerate of claim 72 or 73, blended or clad with a metal alloy.

75. (Previously presented) Thermal spraying of the composition of any of claims 72 to 74.

76. (new) A method for producing solid lubricant agglomerates comprising:

> admixing a plurality of components comprising particulate solid lubricant, an inorganic binder, and a liquid in a mixing zone to produce a mixture having about 5 to 60 weight % solids based on the total weight of the mixture, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 19:1 to about 1:19;
>
> drying the mixture to produce dry agglomerates; and
>
> classifying the dry agglomerates by size, or milling and classifying the dry agglomerates by size, into an undersize particle fraction, a desired particle size fraction and an oversize particle fraction; and
>
> recycling the undersize particle fraction into the mixing zone.

77. (new) The method as claimed in claim 76, wherein the oversize particle fraction is either admixed with the plurality of components to form the mixture, or is crushed to achieve the desired particle size cut.

78. (new) The method as claimed in claim 76, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

79. (new) The method as claimed in claim 76, wherein the ratio of the weight of the solid lubricant being admixed to the weight of the binder being admixed is about 8 : 2.

80. (new) The method as claimed in claim 76, wherein the solid lubricant is at least one lubricant selected from the group consisting of hexagonal boron nitride, graphite, calcium fluoride, magnesium fluoride, barium fluoride, tungsten disulphide and molybdenum disulphide particles.

81. (new) The method as claimed in claim 76, wherein the solid lubricant is hexagonal boron nitride.

82. (new) The method as claimed in claim 81, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is from about 9 : 1 to about 4 : 6.

83. (new) The method as claimed in claim 81, wherein the ratio of the weight of hexagonal boron nitride being admixed to the weight of the binder being admixed is about 8 : 2.

84. (new) The method as claimed in claim 81, wherein the liquid is water and the binder is hydrous aluminium silicate that is configured to be stabilized at temperatures above 850°C in the desired particle size cut.

85. (new) The method as claimed in claim 81, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

86. (new) The method as claimed in claim 76, wherein the liquid is water and the binder is hydrous aluminium silicate that is configured to be stabilized at temperatures above 850°C in the desired particle size cut.

87. (new) The method as claimed in claim 76, further comprising admixing a filler with the solid lubricant, the binder, and the liquid to produce the mixture, wherein the solids of the mixture has up to 40 volume % filler based on the total volume of the solids.

88. (new) The method as claimed in claim 76, wherein the mixture comprises 20 to 30 weight% solids based on the total weight of the mixture.

89. (new) The method as claimed in claim 76, wherein the binder is sodium silicate.

90. (new) The method as claimed in claim 76, wherein the drying of the mixture occurs at a temperature below an effective temperature at which the binder is rendered non-dispersible in the liquid.

91. (new) The method as claimed in claim 76, wherein the binder of the onsize particle fraction is rendered non-dispersible in the liquid.

92. (new) The method as claimed in claim 76 or 91, wherein the undersize particle fraction is supplied to the plurality of components after being classified from the dry agglomerates.